MOW Group

Report on Spit Activities 2009/10

The first year of operation was necessarily a learning one, we have no evidence that any Dotterel chicks fledged, but we gathered a lot of information, experience and rubbish in the process. This needs now to be incorporated in a management plan for 2010/11 and future seasons.

Among the important results obtained.

- 10-12 pairs of New Zealand Dotterel bred on the spit.
- 10-12 Pairs of Variable Oystercatcher bred with good results.
- 200-250 pairs of Red-billed Gulls and 32 pairs of White-fronted Terns also bred successfully on the spit.
- 3 pairs of Black-backed Gulls bred – 2 raised clutches, we failed to prick all the eggs!
- There are major predators present on the spit
- There are still some skinks on the spit.
- Access to the spit is tricky and a boat is necessary for any effective programme.
- Step-ladders help observation and monitoring.
- We need to be a bit smarter with our replanting strategy.
- The eradication of Pampas Grass is going to be a major job!
- Public education is essential, especially through the schools; we have no evidence of any significant human interference with the breeding species on the spit.
- Rubbish collection needs to be an ongoing process throughout the year.

Alien Animal Pests

Gus Cantlon has been in charge of trapping this season, initially in August we set traps in the breeding area, but once breeding had started, these were moved on September 13th, out of the breeding area and formed a line across the spit at its narrowest point, c. 500m from the tip.

A major realization from the past season is that a boat is essential to carry out a trapping exercise. Use of a vehicle from Te Tumu Cut would result in a significant track developing which would not be a good idea.

Species trapped:

- Feral Cat 01
- Brown or Norwegian Rat 27
- Hedgehog 05 (First on 17 Sep)
- Stoat 02 (24/01 & 01/02)
- House Mouse 04

The cat was caught in September, the two stoats in January and February which may indicate that they were young ones, or just part of a post-season dispersal. The mice were caught in August/September when the traps were set near the end of the spit, indicating that they are more in evidence there, in the actual nesting area, than further back. The hedgehogs were caught throughout the breeding season, both in the nesting area in September and further back during the season.

Traps were attended twice a week from August 15 through December 15th, and once a week from then until trapping ended on February 10th 2010. A total of 37 visits and 75-100 man hours.

The trapping record gives us a clear indication of the pest species present and the need to develop a strategy to deal with these this coming season. Gus has already developed some ideas which can be incorporated into the 2010/11 Management Plan.

Monitoring

13 monitoring visits were made to the spit from September 13th 2009 to February 21st 2010. This is probably not enough, but access to the spit is very restricted unless you have a boat, all monitoring visits were done by JF with help from Jayne Ivimey, Dorothy Mutton, Rebecca Hughes-Simpson and Trevor Hughes who helped erect the 'fence.

Some 20 marker posts were erected around the spit mostly with 25m spacing, but 100m on the ocean beach and up the harbour. Every other post had a DoC sign on it and the 25m spaced posts were linked with a single strand of electric fencing tape/wire. Several of the posts had to be relocated due to erosion on the harbour side of the spit during the season, but none were lost and there was no damage or vandalism to the posts, signs or tape.

Each post was numbered B1-10 on the beach side and H1-10 on the harbour side. This worked reasonably well in helping to identify areas, but it would be good to increase visibility of these numbers for next season so that they are easily visible at least with binoculars. It would also help to have a number of low stakes, also numbered, running East-West along the centre line of the spit to further enable the area to be divided up for reference when defining dotterel territories, and locating BBG nests.

The size of the spit and the amount of vegetation made it difficult to observe birds in the centre, however we found that an aluminium step-ladder gave just that additional height to improve observation. Thanks to Dave Crossley and Dot Mutton for donating our two stepladders.

Details of the monitoring visit are in the Monitoring Record report, however in summary:

Number of young fledged on spit:

New Zealand Dotterel	4 - 2 well feathered but none confirmed.
Variable Oystercatcher	10+
Red-billed Gull	c.200
White-fronted Tern	c.30
Black-backed Gull	4

Tracking Tunnels

Tracking tunnels were deployed around the spit from mid-October. These were numbered in the same system as the post with one TT 5-10m inland from each post.

Species tracked:

- Hedgehog
- Rat – probably Brown.
- Mouse
- Skink (probably Shore Skink *Oligosoma smithii*)
- Locust (Grasshopper)

Details are contained in the Monitoring Record Tables.

Young Variable Oystercatchers also used some tunnels as a refuge, it is possible that NZDs did also, but were not observed to do so.

The TT evidence indicates that rats, a likely main predator of NZDs, were present on the spit, especially nearer the tip, throughout the breeding season. Hedgehogs were less in evidence, especially later on, this might indicate they moved up he spit and were trapped, but that is just speculation. Rats can access the spit by swimming which would explain their presence mainly at the end of the spit, closest to Maketu.

Native Pests

Two native species were present on the spit that could cause problems for the NZDs

- Black-backed Gull - Present and breeding throughout the NZD breeding season.
- Spur-winged Plover – Present at the start and end of the NZD breeding season, but did not breed.

While some BBG eggs were pricked, they did manage to raise at least 4 young, they are a clear danger to the NZD and our strategy needs to include ways of minimizing the danger they pose.

Spur-winged Plovers may be a threat but did not appear to be a serious problem; they were generally not observed close to the BBGs. It is possible that the presence of BBGs may have deterred the SWPs.

Summary

It would appear that the three most dangerous predators of dotterel and other native species on the spit are:

Black-backed Gull
Hedgehog
Brown Rat.

This is not to downplay the significance of cats and stoats, but the cat may have been a one off, and the stoats arrived late in the season. Any strategy needs to focus on the three main problem species while maintaining a trapping presence for cats and stoats. Mice are likely to be less of a threat to Dotterel, but will have an impact on skink and native invertebrates.

Given the presence of rats and hedgehogs on the spit during the breeding season, and the danger of having traps set in the breeding area, during the season, we need to consider alternative ways of removing these species during the breeding season. Rats in particular will be able to repopulate the spit by swimming. We need to develop a strategy to control or eliminate rats and hedgehogs, this will probably involve using poison as well as physical traps.

Hedgehog are definitely present on the spit out of season, so we need to give consideration to removing them, as well as controlling rats, during the off season, when in theory trapping should be more productive due to less food being available..

Plants

The spit has in general a good covering of native grasses, especially Spinifex and Pingao, with a number of other natives. However there are significant amount of alien plants which in time would likely become more widespread to the detriment of the native flora, and by implication fauna.

Alien plant species present on the spit:

- Monterey Pine - *Pinus radiata*
- Pampas Grass - *Cortaderia selloana*
- Gorse - *Ulex europaeus*
- Tree Lupin – *Lupinus arboreus*
- Purple Groundsel – *Senecio elegans*
- Fleabane – *Conzya samoana*

We have already removed the pampas and most of the gorse from the tip, and started work on them at the Te Tumu cut end. This season we need to continue the program while including additional species.

Pampas: we removed most plants from the east end of the spit, but by late March there were again a significant number of small plants, most of these have since been removed. However the larger plants that we cut and poisoned near the causeway across to Papahikawai Island have died off in the middle but sprouted healthily around the outside. A new strategy is needed.

We also planted out a significant number of native species, with mixed results, any planting this season needs to be done within an overall framework so that planting is only done of those species likely to survive in those locations. Final conformation of planting success can only be done after a wet period as some apparently dead plants may recover once the rains come.

Te Tumu (Kaituna) Car Park

This is a mess, and is likely to remain so whilst in its current arrangement. Working to improve this area is not a high priority for the coming season, we should seek to keep it as clean and tidy as is practicable. It does however make sense to start to develop ideas and plans as to how to improve this area.

The planting in front of the rocks by the jetty did not survive long, the wood being taken for burning, a new strategy is needed here.

Rubbish Collection.

The initial rubbish collection as very 'successful' with a very large pile of rubbish being collected, we have continued to keep the tip of the spit clear, but it is a continuous process, we had to kill three birds, 1 BBG and 2 RBGs that had become caught on fishing gear, one was disentangled and survived.

For the new season we need another major collection effort prior to the start of the breeding season, this could be coupled with a plant eradication day when transport is available to collect the tree lupins in particular.

Rubbish should be collected on all monitoring visits – a garden weeding/clippings bag, proved to be very good for this purpose. All rubbish was placed in municipal bins by the Surf Club.

The Fence

This appears to have been successful as there were very few reported problems. The posts need to be checked regularly as erosion of the bank was significant with one post needing to be moved 3 times. Thanks to Trevor Hughes in helping to erect the posts and fence.

The people at the Surf Club were also helpful and on at least one occasion used their load hailer system to stop people encroaching on the breeding area.

The presence of a colony of some 200-250 pairs of Red-billed Gulls also acted as a deterrent to trespassers as they are very noisy and can make a mess on you!

Survey

While a group from BoP Poly visited the spit as part of a training course, no specific information was forthcoming, but there is a clear need for a proper survey of the spit and its flora and fauna, especially to track any changes resulting from group activity.

Lessons learned and recommendations

The 2009/10 breeding season programme was very successful in giving us a clear indication of how to proceed for the 2010/11 season. While the data collected could have been better, we are much better informed about the predators around and we have managed to get the message out to the community, recommendations for 2010/11 are:

- Maintain good relations with the community, another presentation at the Whakaue Marae makes sense and a poster competition or similar involvement of the school makes sense.

- It would be good to try and arrange for the school to visit the spit, this would probably need to be early in the breeding season.

- Maintain a good flow of information to the local media.

- The fence was very successful, but extending it would be helpful, making the post numbers more visible and having a series of low posts in the middle of the spit would help to be able to define NZD breeding areas and locate BBG nests more easily.

- Trapping was a success, we probably need to start earlier on the spit, specifically to get rid of hedgehog there, and then move the traps back up the spit, Gus is keen to build a fence across the spit to funnel pest species to the traps. It would probably be good to talk to someone about previous experiences with this sort of system. We may also want to consider buying at least one of the new automatic rat traps. Ongoing control of rats in the breeding area should be done using poison bait stations, subject to the necessary permissions and controls. We also need to deal with the BBGs.

- Tracking tunnels were effective and need to be redeployed again to monitor the situation.

- Plant control needs to be started early, all remaining pampas, gorse and tree lupins on the breeding area need to be removed by mid-August, control of Fleabane, Purple Groundsel and other weed species needs to be done on an ongoing basis, being annuals, they tend to be more of a problem in mid-season than at the beginning. This should be tied in with the monitoring visits if possible.

- Planting of native species needs to be done early at selected sites using species that are know to be suitable and able to resist the rather harsh dry conditions that exist in the summer and autumn.

- Rubbish collection is valuable in getting rid on unsightly plastics etc. but also in removing fishing line which is a potential threat to bird species. It needs to be done regularly and is best linked in to the monitoring visits.

- The question of boat access to the spit needs to be addressed and the possibility or option of having a 'group' boat available examined.

JF
15th April 2010